

**Notice of Allowability**

Application No.

10/763,041

Applicant(s)

HAWKES, GRAHAM

Examiner

Lars A. Olson

Art Unit

3617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the after-final amendment received from the applicant on August 21, 2006.
2. ☒ The allowed claim(s) is/are 1-89.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### Reasons for Allowance

1. An after-final amendment was received from the applicant on August 21, 2006.
2. Claims 1-89 are allowed.
3. The following is an examiner's statement of reasons for allowance. The submersible as claimed is not shown or suggested in the prior art because of the use of a submersible that is comprised of a hull having at least one pressure pod for accommodating at least one person, and at least one pair of fixed wings with ailerons that are disposed on said hull, where said pressure pod is maintained at a constant pressure, said submersible does not include a ballast tank, and said submersible has a fixed positive buoyancy and a fixed center of buoyancy that is in close proximity to the center of gravity of said submersible.
4. The prior art as disclosed by Bandyopadhyay (US 5,673,645) shows the use of a submersible that is comprised of a hull with a compartment for accommodating at least one person, and at least one pair of fixed wings with flaps that are disposed on said hull, where said submersible does not include a ballast tank. However, Bandyopadhyay does not indicate whether said compartment is pressurized, or whether said submersible has a fixed positive buoyancy and a fixed center of buoyancy. Bandyopadhyay only indicates that the relative positions of the center of pressure and the center of gravity of said submersible "could be such that the vehicle could be in neutral equilibrium". Doolittle (US 2,720,367) and Ness (US 6,371,041) disclose submersibles with wing structures and ailerons, but said submersibles utilize ballast

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tanks to provide and control variable buoyancy. Therefore, none of the prior art cited shows or suggests the use of a submersible that is comprised of a hull having at least one pressure pod for accommodating at least one person, and at least one pair of fixed wings with ailerons that are disposed on said hull, where said pressure pod is maintained at a constant pressure, said submersible does not include a ballast tank, and said submersible has a fixed positive buoyancy and a fixed center of buoyancy that is in close proximity to the center of gravity of said submersible.

### ***Conclusion***

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication from the examiner should be directed to Exr. Lars Olson whose telephone number is (571) 272-6685.

lo

September 6, 2006

**LARS A. OLSON  
PRIMARY EXAMINER**

*Lars Olson*  
9/6/06